Nikhil Rastogi

Bachelor of Technology
in Mathematics and Computing
Indian Institute Of Technology, Ropar

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EDUCATION

Degree	Institute/Board	CGPA/Percentage	Year
Bachelor of Technology	Indian Institute of Technology, Ropar	7.96 (Till 5th Sem)	2021-2025
Senior Secondary	Manav Rachna International School, Sec-46 (CBSE)	92.8%	2020
Secondary	Manav Rachna International School, Sec-46 (CBSE)	94.8%	2018

PROJECTS

- **Leetcode Clone Webapp** *Nov 2023 - Jan 2024*
  WebDev Project **Github**
  – MERN Stack Web App that allows users to submit their code and test against given testcases
  – Uses MongoDb for polling the responses
  – Languages supported : C, C++, Python3, Python, Rust, Golang, Javascript, Typescript
  – Shows users time taken and memory taken for execution
- **Chat App** *Apr 2023 - Present*
  WebDev Project **Github**
  – MERN Stack Web App that allows users to chat in group and one-to-one
  – Uses Socket.io for real-time messaging, presence and online status, typing Indicators and more
  – Allows users to videocall (one-to-one) using WebRTC
- **myNotes** *Jan 2023 - Feb 2023*
  WebDev Project **Github**
  – Web app for note taking which allows users to sign-in/sign-up and saves notes and edit them
  – Full-stack web application using the MERN stack which allows inplace text-editing
  – Employed RESTful API principles for smooth communication between the client-side and server-side
- **Encryption and Compression** *Oct 2022 - Dec 2022*
  DSA project **Github**
  – Made a project which accepts a string, encrypts it, compresses it, then decompresses it and then decrypts it.
  – Implemented RSA algorithm and Huffman compression in C++
  – Implemented SHA-256 and SHA-512 in C++
- **Other Projects** *Dec 2021 - Dec 2022*
  WebDev Projects **Github**
  – Multiplayer Chess with videochat feature
  – Google Doc Clone - allows for collaborative writing done using ReactJs, Socket.io, and MongoDB
  – Finance Tracker website which plots daily income and expenditure using MERN Stack
  – DailyBuzz - A web-based app showcasing daily news updates made using React.Js and NewsAPI
  – Text-Editor made using React.Js and Bootstrap

TECHNICAL SKILLS

- **Programming Languages**: C/C++, Javascript, Python, Solidity, Golang, Rust
- **Software/Tools**: MATLAB, Git/Github, VS Code, Command Prompt, Remix IDE
- **Libraries/Frameworks**: Node.js, Bootstrap, Express.js, React.js, Socket.io, WebRTC, Web3.js, Ethers.js, Truffle, Hardhat, Ganache (GUI and CLI), EJS, Pug, Mongoose, TensorFlow, Keras, OpenCV

KEY COURSES TAKEN

- **CSE & Maths**: Algorithm and Data Structure, Numerical Analysis using MATLAB, Theory of Computation, Discrete Mathematics, Real Analysis, Probability and Statistics, Foundation of Data Science, Machine Learning, Analysis and Design of Algorithms , Blockchain Technology, Graph Theory, Optimization Methods
- **Others**: Tinkering Lab, Basic Electronics , Signals and Systems, Human Geography and Societal Needs, Economics, Industrial Management,

POSITIONS OF RESPONSIBILITY

- **Secretary**, SoftCom Club, IIT Ropar *Jun. 2023 - Mar. 2024*
- **Coordinator**, ENarrators (Oratory) Club, IIT Ropar *Dec. 2022 - May 2023*
- **Coordinator**, Utility Feedback Management Committee, IIT Ropar *Dec. 2022 - May 2023*
- **Representative**, Mess Management Committee, IIT Ropar *Apr. 2022 - Oct. 2022*

MISCELLANEOUS

- **JEE Advanced**, Achieved CRL 2653 *2021*
- **JEE Mains**, Achieved CRL 4008 *2021*
- **National Mathematics Talent Contest (NMTC)**, Qualified a national level exam taken by 66,000+ students *2017*